NOTES ON WEATHER IN OTHER PARTS OF THE WORLD.

North Atlantic Ocean.—On April 8 the U. S. Hydrographic Office sent out a notice to mariners urging them to shift the sailing routes 60 miles southward because of the numerous ice fields in the regular steamer lanes.

Central Europe.—According to press advices the great drought which had persisted for six months over Central Europe, particularly in Switzerland, Austria, Hungary, and Rumania, was brought to an end in early April by the advent of heavy snows in the Alps and copious rains in the lowlands. Prior to this precipitation period, agricultural conditions had reached an acute crisis. In Switzerland and Austria there was little pasture for cattle and hence little butter, milk, or cheese.

British Isles.—There was a very general deficiency in rainfall throughout the British Isles during April. Only restricted areas in England, Wales, and Ireland had as much as 2 inches. The general rainfall, expressed as a percentage of the average, was: England and Wales, 59; Scotland, 61; Ireland, 46; British Isles, 56.

In London (Camden Square) the month was fine and pleasantly mild, but with a cold snap and snow showers between the 15th and 17th. The mean temperature was 49.5° F., or 1.5° F. above the average.[1]

France.—Temperature in France, which had been unusually high, fell rapidly, and on the 15th the rain turned to snow and sleet, which lasted for several days.

Mexico.—A severe eruption of the volcano of Popocatepetl occurred early in April. This is a recrudescence of the activity which began in the spring of 1920, after 200 years of quietude. In the past the dust associated with volcanic eruptions has been responsible for considerable meteorological effects, especially a diminution in the heat and light from the sun, and brilliant sunset coloration, a noteworthy example being Krakatoa in 1883, and it will be interesting to observe if similar effects follow in this case.[1]

[1] *The Meteorological Mag.*, May, 1921, 56: 111-112.

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DETAILS OF THE WEATHER OF THE MONTH IN THE UNITED STATES.

CYCLONES AND ANTICYCLONES.

By W. P. DAY, Observer.

Low-pressure areas were numerous, many of which first took form over the southwestern States, grew in intensity over the central valleys but lost energy as they approached the coast or the northern border. Hudson Bay HIGHS were persistent during much of the month and effectively deranged the normal movement of weather.

The table below gives the number of HIGHS and LOWS by types:

Lows.

	Alberta.	North Pacific.	South Pacific.	Northern Rocky Mountain.	Colorado.	Texas.	East Gulf.	South Atlantic.	Central.	Total.
April, 1921	5.0	.....	3.0	2.0	2.0	4.0	.....	3.0	1.0	20.0
Average number, 1892-1912	3.4	1.6	0.9	0.5	1.3	1.0	0.3	0.6	0.7	10.3

Highs.

	North Pacific.	South Pacific.	Alberta.	Plateau and Rocky Mountain region.	Hudson Bay.	Total.
April, 1921	3.0	.....	3.0	1.0	5.0	12.0
Average number, 1892-1912	1.6	1.6	3.1	1.0	0.6	7.9

THE WEATHER ELEMENTS.

By P. C. DAY, Climatologist and Chief of Division.

[Weather Bureau, Washington, June 1, 1921.]

PRESSURE AND WINDS.

During the first half of the month pressure changes continued slight in the main, and the lull in cyclonic and anticyclonic activities that had marked the preceding months of the present year continued, except that unusually high pressure of the Hudson Bay type overspread the Northeastern States and Canadian Maritime Provinces near the middle of the first decade, and pressure was high over the central valleys and southeastern districts during the latter part of the first and the early part of the second decades.

Near the middle of the month, however, the weather became more unsettled, particularly over the Southwest, where on the morning of the 15th pressure was unusually low and stormy conditions existed over practically all districts eastward and northeastward. This storm in its eastward movement brought the heaviest precipitation of the month over most central and eastern districts and was accompanied by heavy, wet snow and high winds over portions of the Great Lakes region, and thence eastward, causing interruptions to wire communications, while to the southward tornadoes, thunderstorms, and high winds caused death or injury to a number of persons, and heavy property losses. This was promptly followed by a high pressure area of considerable magnitude, and during the 17th and 18th unusual cold was experienced in the central valleys and southern districts, particularly in Texas, Oklahoma, Arkansas, and portions of adjoining States.

By the first of the third decade pressure had again become low in the Southwest, and cloudy, rainy conditions soon overspread the central valleys, precipitation becoming general during the following two or three days over all districts from the Mississippi River eastward, the falls in general being the second heaviest of the month in numerous sections. As this storm was passing into the ocean from off the southern New England coast a third storm area of wide extent was developing in the Southwest, attended by unusually low pressure, the barometer at Roswell, N. Mex., on the morning of the 24th reduced to sea level, indicating a value of 29.22 inches, the lowest ever observed at that station.

This storm area moved slowly eastward but without the usual precipitation in advance of the center, due doubtless to the strong southerly winds and rapidly rising temperature along its eastern front. Later on, however, thunderstorm conditions developed in the Mississippi Valley districts, and by the morning of the 27th a storm of considerable intensity was central in the upper Lake region, which gradually moved northerly toward the Hudson Bay district during the following day. Offshoots from this, however, appear to have